FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

Lone Star NGL Fractionators LLC

AUTHORIZING THE OPERATION OF

Lone Star NGL Mont Belvieu Gas Plant
Natural Gas Liquids

LOCATED AT

Chambers County, Texas

Latitude 29° 51' 2" Longitude 94° 54' 37"

Regulated Entity Number: RN106018260

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: O3586 Issuance Date: _____

_____
For the Commission

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General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions:
Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:

    A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.

    B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.

E. Emission units subject to 40 CFR Part 63, Subpart ZZZZ as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.1090 which incorporates the 40 CFR Part 63 Subpart by reference.

F. For the purpose of generating emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 1 (Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 101.302 (relating to General Provisions)

(ii) Title 30 TAC § 101.303 (relating to Emission Reduction Credit Generation Certification)

(iii) Title 30 TAC § 101.304 (relating to Mobile Emission Reduction Credit Generation and Certification)

(iv) Title 30 TAC § 101.305 (relating to Emission Reductions Achieved Outside the United States)

(v) Title 30 TAC § 101.309 (relating to Emission Credit Banking and Trading)

(vi) The terms and conditions by which the emission limits are established to generate the reduction credit are applicable requirements of this permit

G. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 3 (Mass Emission Cap and Trade Program) Requirements:

(i) Title 30 TAC § 101.352 (relating to General Provisions)

(ii) Title 30 TAC § 101.353 (relating to Allocation of Allowances)

(iii) Title 30 TAC § 101.354 (relating to Allowance Deductions)

(iv) Title 30 TAC § 101.356 (relating to Allowance Banking and Trading)

(v) Title 30 TAC § 101.358 (relating to Emission Monitoring and Compliance Demonstration)

(vi) Title 30 TAC § 101.359 (relating to Reporting)

(vii) Title 30 TAC § 101.360 (relating to Level of Activity Certification)

(viii) The terms and conditions by which the emission limits are established to meet or exceed the cap are applicable requirements of this permit

H. For the purpose of generating discrete emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 101.372 (relating to General Provisions)

(ii) Title 30 TAC § 101.373 (relating to Discrete Emission Reduction Credit Generation and Certification)

(iii) Title 30 TAC § 101.374 (relating to Mobile Discrete Emission Reduction Credit Generation and Certification)

(iv) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

(v) Title 30 TAC § 101.378 (relating to Discrete Emission Credit Banking and Trading)

(vi) The terms and conditions by which the emission limits are established to generate the discrete reduction credit are applicable requirements of this permit

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):

A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements

B. Title 30 TAC § 101.3 (relating to Circumvention)

C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ

D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ

E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)

F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)

G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)

H. Title 30 TAC § 101.221 (relating to Operational Requirements)

I. Title 30 TAC § 101.222 (relating to Demonstrations)

J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1 , shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

(i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(1)(E)

(iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)

(iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the

"Applicable Requirements Summary" attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

(1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.

(2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

(3) Records of all observations shall be maintained.

(4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(5) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

(c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)

(iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:

(1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be

conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.

(2) Records of all observations shall be maintained.

(3) Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required

under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

C. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.

D. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).

E. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:

(i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)

(ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)

(iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)

F. Outdoor burning, as stated in 30 TAC § 111.201, shall not be authorized unless the following requirements are satisfied:

(i) Title 30 TAC § 111.205 (relating to Exception for Fire Training)

(ii) Title 30 TAC § 111.207 (relating to Exception for Recreation, Ceremony, Cooking, and Warmth)

(iii) Title 30 TAC § 111.219 (relating to General Requirements for Allowable Outdoor Burning)

(iv) Title 30 TAC § 111.221 (relating to Responsibility for Consequences of Outdoor Burning)

4. For storage vessels maintaining working pressure as specified in 30 TAC Chapter 115, Subchapter B, Division 1: Storage of Volatile Organic Compounds, the permit holder shall comply with the requirements of 30 TAC § 115.112(e)(1).

5. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:

A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)

B. Title 40 CFR § 60.8 (relating to Performance Tests)

C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)

D. Title 40 CFR § 60.12 (relating to Circumvention)

E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)

F. Title 40 CFR § 60.14 (relating to Modification)

G. Title 40 CFR § 60.15 (relating to Reconstruction)

H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

6. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

Additional Monitoring Requirements

7. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached "CAM Summary" upon issuance of the permit. In addition, the permit holder shall comply with the following:

A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).

B. The permit holder shall report, consistent with the averaging time identified in the "CAM Summary," deviations as defined by the deviation limit in the "CAM Summary." Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "CAM Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).

D. The permit holder shall operate the monitoring, identified in the attached "CAM Summary," in accordance with the provisions of 40 CFR § 64.7.

E. Except for emission units using a CEMS, COMS or PEMS which meets the requirements of 40 CFR § 64.3(d)(2), the permit holder shall comply with either of the following requirements for any capture system associated with the VOC control device subject to CAM. If the results of the following inspections indicate that the capture system is not working properly, the permit holder shall promptly take necessary corrective actions:

(i) Once a year the permit holder shall inspect the capture system in compliance of CAM for leaks in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppm above background or as defined by the underlying applicable requirement; or

(ii) Once a month, the permit holder shall conduct a visual, audible, and/or olfactory inspection of the capture system in compliance of CAM to detect leaking components.

F. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.

New Source Review Authorization Requirements

8. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:

A. Are incorporated by reference into this permit as applicable requirements

B. Shall be located with this operating permit

C. Are not eligible for a permit shield

9. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.

10. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment.

The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, material safety data sheets (MSDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144.

A. If applicable, monitoring of control device performance or general work practice standards shall be made in accordance with the TCEQ Periodic Monitoring Guidance document.

B. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

11. The permit holder shall comply with the following requirements for Air Quality Standard Permits:

A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit

B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit

C. Applicable requirements of 30 TAC § 116.620 for Installation and/or Modification of Oil and Gas Facilities based on the information contained in the registration application.

Compliance Requirements

12. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.

13. Permit holder shall comply with the following 30 TAC Chapter 117 requirements:

A. The permit holder shall comply with the compliance schedules and submit written notification to the TCEQ Executive Director as required in 30 TAC Chapter 117, Subchapter H, Division 1:

(i) For sources in the Houston-Galveston-Brazoria Nonattainment area, 30 TAC § 117.9020:

(1) Title 30 TAC § 117.9020(2)(A), (C), and (D)

B. The permit holder shall comply with the requirements of 30 TAC § 117.354 for Final Control Plan Procedures for Attainment Demonstration Emission Specifications and 30 TAC § 117.356 for Revision of Final Control Plan.

14. Use of Emission Credits to comply with applicable requirements:

A. Unless otherwise prohibited, the permit holder may use emission credits to comply with the following applicable requirements listed elsewhere in this permit:

(i) Title 30 TAC Chapter 115

(ii) Title 30 TAC Chapter 117

(iii) Offsets for Title 30 TAC Chapter 116

B. The permit holder shall comply with the following requirements in order to use the emission credits to comply with the applicable requirements:

(i) The permit holder must notify the TCEQ according to 30 TAC § 101.306(c)(2)

(ii) The emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 1

(iii) The executive director has approved the use of the credit according to 30 TAC § 101.306(c)(2)

(iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.302(g) and 30 TAC Chapter 122

15. Use of Discrete Emission Credits to comply with the applicable requirements:

A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:

(i) Title 30 TAC Chapter 115

(ii) Title 30 TAC Chapter 117

(iii) If applicable, offsets for Title 30 TAC Chapter 116

(iv) Temporarily exceed state NSR permit allowables

B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:

(i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)

(ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4

(iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)

(iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

Risk Management Plan

16. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

Protection of Stratospheric Ozone

17. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone.

A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

Permit Location

18. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Permit Shield (30 TAC § 122.148)

19. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

Applicable Requirements Summary

Unit Summary 17

Applicable Requirements Summary 19

Note: A "none" entry may be noted for some emission sources in this permit's "Applicable Requirements Summary" under the heading of "Monitoring and Testing Requirements" and/or "Recordkeeping Requirements" and/or "Reporting Requirements." Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRP OILHTRS	Boilers/Steam Generators/ Steam Generating Units	HOHTR-1, HOHTR-2	93813	30 TAC Chapter 116, NSR Permits	No changing attributes.
GRP OILHTRS	Boilers/Steam Generators/ Steam Generating Units	HOHTR-1, HOHTR-2	R117-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
GRP OILHTRS	Boilers/Steam Generators/ Steam Generating Units	HOHTR-1, HOHTR-2	60Db-1	40 CFR Part 60, Subpart Db	No changing attributes.
GRP REGENHTRS	Boilers/Steam Generators/ Steam Generating Units	REGENHTR1, REGENHTR2	R117-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
GRP REGENHTRS	Boilers/Steam Generators/ Steam Generating Units	REGENHTR1, REGENHTR2	60Dc-1	40 CFR Part 60, Subpart Dc	No changing attributes.
GRP AMINE VENT	Emission Points/Stationary Vents/Process Vents	AMINETRT-1, AMINETRT-2	R115-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
004-FLARE	Flares	N/A	R111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
004-FLARE	Flares	N/A	60A-1	40 CFR Part 60, Subpart A	No changing attributes.
GRP FUGS	Fugitive Emission Units	009-FUG, 019-FUG	R5352-ALL	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	No changing attributes.
GRP FUGS	Fugitive Emission Units	009-FUG, 019-FUG	60OOOO-1	40 CFR Part 60, Subpart OOOO	No changing attributes.
GRP AMINE	Gas Sweetening/Sulfur Recovery Units	AMINE I, AMINE II	60LLL-1	40 CFR Part 60, Subpart LLL	No changing attributes.
008-LDSLP	Loading/Unloading Operations	N/A	R115-1	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
GEN-LOAD	Loading/Unloading Operations	N/A	R115-1	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
010-DGEN1	SRIC Engines	N/A	R117-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
010-DGEN1	SRIC Engines	N/A	60IIII-1	40 CFR Part 60, Subpart IIII	No changing attributes.
010-DGEN1	SRIC Engines	N/A	63ZZZZ-1	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
011-DGEN2	SRIC Engines	N/A	R117-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
011-DGEN2	SRIC Engines	N/A	60IIII-1	40 CFR Part 60, Subpart IIII	No changing attributes.
011-DGEN2	SRIC Engines	N/A	63ZZZZ-1	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GRP TANKS	Storage Tanks/Vessels	005ATKAM1, 005BTKAM2, 007TKSLOP, 015TKAMINE, 016TKUSE, 017TKNEW, 018TKSLOP	R115-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP OILHTRS	EU	93813	NOX	30 TAC Chapter 116, NSR Permits	93813	93813	93813 ** See CAM Summary	93813	93813
GRP OILHTRS	EU	R117-1	NO_X	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(1)(A) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(f)(1) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO_x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(2) § 117.335(g) § 117.340(a)(2)(B) § 117.340(b)(1) § 117.340(b)(3) § 117.340(c)(1) [G]§ 117.340(c)(3) [G]§ 117.340(f)(2) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(i) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6)	§ 117.345(a) § 117.345(f) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(3) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
GRP OILHTRS	EU	R117-1	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B) § 117.310(c)(3)	CO emissions must not exceed 400 ppmv at 3.0% O 2, dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b)	§ 117.345(a) § 117.345(f) § 117.345(f)(7)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 117.8120		§ 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a)(2)(B) § 117.340(b)(1) § 117.340(b)(3) § 117.340(e) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) § 117.8120(2) [G]§ 117.8120(2)(A) § 117.8120(2)(B)	§ 117.345(f)(9)	[G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
GRP OILHTRS	EU	R117-1	NH_3	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(A)	For boilers that inject urea or ammonia into the exhaust stream for NO_x control, ammonia emissions must not exceed 10 ppmv at 3.0% O_2, dry.	§ 117.335(a)(2) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(d) § 117.8000(b) § 117.8000(c) § 117.8000(c)(3) § 117.8000(c)(4) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) [G]§ 117.8130	§ 117.345(a) § 117.345(f) § 117.345(f)(11) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
GRP OILHTRS	EU	60Db-1	SO_2	40 CFR Part 60, Subpart Db	§ 60.42b(k)(2)	Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO2 emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or	§ 60.47b(f)	§ 60.45b(k) § 60.49b(o) § 60.49b(r) [G]§ 60.49b(r)(2)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(r) [G]§ 60.49b(r)(2)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						less are exempt from the SO2 emissions limit in §60.42b(k)(1).			
GRP OILHTRS	EU	60Db-1	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
GRP OILHTRS	EU	60Db-1	PM (OPACITY)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
GRP OILHTRS	EU	60Db-1	NO_X	40 CFR Part 60, Subpart Db	§ 60.44b(l)(1) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Affected facilities combusting coal, oil, or natural gas, or a mixture of these fuels, or any other fuels: a limit of 86 ng/JI (0.20 lb/million Btu) heat input unless the affected facility meets the specified requirements.	§ 60.46b(c) § 60.46b(e) § 60.46b(e)(1) § 60.46b(e)(3) [G]§ 60.48b(b) § 60.48b(c) § 60.48b(d) § 60.48b(e) [G]§ 60.48b(e)(2) § 60.48b(e)(3) § 60.48b(f)	[G]§ 60.48b(b) § 60.48b(c) [G]§ 60.49b(d) [G]§ 60.49b(g) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3) § 60.49b(b) § 60.49b(h) § 60.49b(i) § 60.49b(v) § 60.49b(w)
GRP REGENHTRS	EU	R117-1	NO_X	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(1)(B) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO_x emission specifications	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f)	§ 117.345(a) § 117.345(f) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(3)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(f)(1) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(3)	but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	§ 117.335(f)(2) § 117.335(g) § 117.340(a)(2)(B) § 117.340(c)(1) [G]§ 117.340(c)(3) [G]§ 117.340(f)(2) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(i) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6)		§ 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
GRP REGENHTRS	EU	R117-1	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B) § 117.310(c)(3) § 117.8120	CO emissions must not exceed 400 ppmv at 3.0% O 2, dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a)(2)(B) § 117.340(e) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6)	§ 117.345(a) § 117.345(f) § 117.345(f)(7) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							[G]§ 117.8000(d) § 117.8120(2) [G]§ 117.8120(2)(A) § 117.8120(2)(B)		[G]§ 117.8010(8)
GRP REGENHTRS	EU	R117-1	NH_3	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(A)	For boilers that inject urea or ammonia into the exhaust stream for NO_x control, ammonia emissions must not exceed 10 ppmv at 3.0% O_2, dry.	§ 117.335(a)(2) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(d) § 117.8000(b) § 117.8000(c) § 117.8000(c)(3) § 117.8000(c)(4) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) [G]§ 117.8130	§ 117.345(a) § 117.345(f) § 117.345(f)(11) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
GRP REGENHTRS	EU	60Dc-1	SO_2	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
GRP REGENHTRS	EU	60Dc-1	PM	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
GRP REGENHTRS	EU	60Dc-1	PM (OPACITY)	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed,	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3)	[G]§ 60.48c(a) § 60.48c(j)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).		§ 60.48c(i)	
GRP AMINE VENT	EP	R115-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(a)(1) § 115.122(a)(1) § 115.122(a)(1)(A)	No person may allow a vent gas stream containing VOC to be emitted from any process vent, unless the vent gas stream is burned properly in accordance with §115.122(a)(1) of this title.	[G]§ 115.125 § 115.126(1) § 115.126(1)(A) § 115.126(1)(A)(i) § 115.126(2) ** See CAM Summary	§ 115.126 § 115.126(1) § 115.126(1)(A) § 115.126(1)(A)(i) § 115.126(2)	None
004-FLARE	EU	R111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
004-FLARE	CD	60A-1	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(5) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(6)	None	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(6)	Components at a petroleum refinery or synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process, that contact a process fluid that contains less than 10% VOC by weight and components at a natural gas/gasoline processing operation that contact a process fluid that	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						contains less than 1.0% VOC by weight are exempt from the requirements of this division except §115.356(3)(C) of this title.			
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(5)	Reciprocating compressors and positive displacement pumps used in natural gas/gasoline processing operations are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(10)	Instrumentation systems, as defined in 40 CFR §63.161 (January 17, 1997), that meet 40 CFR §63.169 (June 20, 1996) are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(11)	Sampling connection systems, as defined in 40 CFR §63.161 (January 17, 1997), that meet the requirements of 40 CFR §63.166(a) and (b) (June 20, 1996) are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(13)	Components/systems that contact a process fluid containing VOC having a true vapor pressure equal to or less than 0.002 psia at 68	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						degrees Fahrenheit are exempt from the requirements of this division except §115.356(3)(C) of this title.			
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(2) § 115.352(9)	Each pressure relief valve equipped with a rupture disk must comply with §115.352(9) and §115.356(3)(C).	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.353(a) § 115.353(b) § 115.910	For all affected persons in the Beaumont-Port Arthur, Dallas-Fort Worth, El Paso, and Houston-Galveston areas, as defined in §115.10, any alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this division may be approved by the executive director in accordance with §115.910 if emission reductions are demonstrated to be substantially equivalent.	None	None	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(7) § 115.357(1)	No process drains shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of	§ 115.354(1) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						process fluid based on sight, smell, or sound.			
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(7)	No process drains shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(9) § 115.357(1) § 115.357(8) § 115.357(9)	No pressure relief valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(9) § 115.357(12)	No pressure relief valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.357(8) § 115.357(9)	sound.			
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(8) § 115.357(9)	No open-ended valves or lines shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8) § 115.357(9)	No open-ended valves or lines shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3)	No valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(8) § 115.357(9)	background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.357(1)		
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8) § 115.357(9)	No valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(8) § 115.357(1) § 115.357(12) § 115.357(8)	No flanges or other connectors shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2)	No flanges or other connectors shall be allowed to have a VOC leak, for more than 15 days after	§ 115.354(1) § 115.354(10) § 115.354(11) § 115.354(3)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(2)(A) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(8) § 115.357(12) § 115.357(8)	discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	[G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(7) § 115.357(1) § 115.357(12) § 115.357(8)	No agitators shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(7) § 115.357(1) § 115.357(12) § 115.357(8)	No agitators shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(7) § 115.357(12) § 115.357(8)	No agitators shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(3) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(7) § 115.357(4) § 115.357(8)	sound.			
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(12) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C)	No pump seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1) § 115.357(8)	per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.357(1)	§ 115.356(5)	
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(12) § 115.357(8)	No pump seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
GRP FUGS	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(C) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.352(8)	No component shall be allowed to have a VOC leak, for more than 15 days, after discovery. If the owner or operator elects to use the alternative work practice in §115.358 of this title, any leak detected as defined in §115.358 of this title, including any leak detected using the alternative work practice on a component that is subject to the requirements of this division but not specifically selected for alternative work	§ 115.354(1) § 115.354(11) § 115.354(13)(A) § 115.354(13)(B) § 115.354(13)(C) § 115.354(13)(D) § 115.354(13)(E) § 115.354(13)(F) § 115.354(4) § 115.354(5) § 115.354(9) [G]§ 115.355 § 115.358(c)(2) § 115.358(d) [G]§ 115.358(e) § 115.358(f)	§ 115.352(7) § 115.354(13)(D) § 115.354(13)(E) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) [G]§ 115.356(4) § 115.356(5)	[G]§ 115.358(g)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.357(8) § 115.358(c)(1) [G]§ 115.358(h)	practice monitoring.			
GRP FUGS	EU	60OOOO-1	VOC	40 CFR Part 60, Subpart OOOO	§ 60.5365 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart OOOO	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart OOOO	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart OOOO	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart OOOO	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart OOOO
GRP AMINE	PRO	60LLL-1	SO_2	40 CFR Part 60, Subpart LLL	§ 60.640(b)	Facilities that have a design capacity less than 2 LT/D of H2S in the acid gas (expressed as sulfur) are required to comply with §60.647(c) but not §60.642 through §60.646.	None	§ 60.647(c)	None
008-LDSLP	EU	R115-1	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(1) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 0.5 psia is exempt from the requirements of this division, except as specified.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None
GEN-LOAD	EU	R115-1	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(1) § 115.212(a)(2) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 0.5 psia is exempt from the requirements of	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						this division, except as specified.			
010-DGEN1	EU	R117-1	EXEMPT	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(11) [G]§ 117.310(f)	Units exempted from the provisions of this division except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1) and 117.354(a)(5) include new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average, in other than emergency situations; and meets the requirements for non-road engines as specified. §117.303(a)(11)(A)-(B)	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
010-DGEN1	EU	60IIII-1	NMHC+ NOX	40 CFR Part 60, Subpart IIII	§ 60.4205(b) [G]§ 60.4211(a) [G]§ 60.4211(f) § 60.4202(a)(2) § 60.4206 § 60.4207(b) § 60.4211(c) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 75 KW and less than or equal to 560 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with an NMHC+NOX emission limit of 4.0 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
010-DGEN1	EU	60IIII-1	CO	40 CFR Part 60, Subpart IIII	§ 60.4205(b) [G]§ 60.4211(a) [G]§ 60.4211(f) § 60.4202(a)92) § 60.4206 § 60.4207(b) § 60.4211(c) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 3.5 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)
010-DGEN1	EU	60IIII-1	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(b) [G]§ 60.4211(a) [G]§ 60.4211(f) § 60.4202(a)(2) § 60.4206 § 60.4207(b) § 60.4211(c) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a PM emission limit of 0.20 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)
010-DGEN1	EU	60IIII-1	OPACITY	40 CFR Part 60, Subpart IIII	§ 60.4205(b) [G]§ 60.4211(a) [G]§ 60.4211(f) § 60.4202(a)(2) § 60.4206 § 60.4207(b) § 60.4211(c) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with maximum engine power less than or equal to 2237 KW and a 2007 model year and later and displacement of less	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 89.113(a)(1) § 89.113(a)(2) § 89.113(a)(3)	than 10 liters per cylinder must comply with the following opacity emission limits: 20% during acceleration mode, 15% during lugging mode, and 50% during the peaks in either acceleration or lugging modes as stated in 40 CFR 60.4202(a)(1)-(2) and 40 CFR 89.113(a)(1)-(3) and 40 CFR 1039.105(b)(1)-(3).			
010-DGEN1	EU	63ZZZZ-1	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	A new/reconstructed stationary RICE located at an area source, or located at a major source of HAP emissions and is a spark ignition (SI) 2SLB < 500 HP, SI 4 SLB < 250 HP, or 4SRB, compression ignition (CI), emergency or limited use, or which combusts landfill or digester gas at > 10% of the gross heat input < 500 HP must meet the requirements of this part by meeting the requirements of 40 CFR Part 60, Subpart IIII, for CI engines or 40 CFR Part 60, Subpart JJJJ, for SI engines.	None	None	None
011-DGEN2	EU	R117-1	EXEMPT	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(11) [G]§ 117.310(f)	Units exempted from the provisions of this division except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1) and	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						117.354(a)(5) include new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average, in other than emergency situations; and meets the requirements for non-road engines as specified. §117.303(a)(11)(A)-(B)			
011-DGEN2	EU	60IIII-1	NMHC+ NOX	40 CFR Part 60, Subpart IIII	§ 60.4205(c)-Table 4 [G]§ 60.4211(a) [G]§ 60.4211(f) § 60.4206 § 60.4207(b) § 60.4211(c) § 60.4218	Owners and operators of emergency stationary fire pump CI ICE with a maximum engine power greater than or equal to 130 KW and less than or equal to 560 KW and a displacement of less than 30 liters per cylinder and is a 2009 model year and later must comply with an NMHC+NOx emission limit of 4.0 g/KW-hr, as listed in Table 4 to this subpart.	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)
011-DGEN2	EU	60IIII-1	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(c)-Table 4 [G]§ 60.4211(a) [G]§ 60.4211(f) § 60.4206 § 60.4207(b) § 60.4211(c) § 60.4218	Owners and operators of emergency stationary fire pump CI ICE with a maximum engine power greater than or equal to 130 KW and less than or equal to 560 KW and a displacement of less than 30 liters per cylinder and is a 2009 model year and later must comply with a PM	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						emission limit of 0.20 g/KW-hr, as listed in Table 4 to this subpart.			
011-DGEN2	EU	63ZZZZ-1	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	A new/reconstructed stationary RICE located at an area source, or located at a major source of HAP emissions and is a spark ignition (SI) 2SLB < 500 HP, SI 4 SLB < 250 HP, or 4SRB, compression ignition (CI), emergency or limited use, or which combusts landfill or digester gas at > 10% of the gross heat input < 500 HP must meet the requirements of this part by meeting the requirements of 40 CFR Part 60, Subpart IIII, for CI engines or 40 CFR Part 60, Subpart JJJJ, for SI engines.	None	None	None
GRP TANKS	EU	R115-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None

Additional Monitoring Requirements

Compliance Assurance Monitoring Summary 41

CAM Summary

Unit/Group/Process Information	
ID No.: GRP AMINE VENT	
Control Device ID Nos.: THERMO-1, THERMO-2	Control Device Type: Thermal Incinerator (Direct Flame Incinerator/Regenerative Thermal Oxidizer)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R115-1
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: The minimum combustion temperature shall not be below 1300 degrees F.	
CAM Text: The monitoring device should be installed in the combustion chamber or immediately downstream of the combustion chamber. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: ± 0.75% of the temperature being measured expressed in degrees Celsius; or ± 2.5 degrees Celsius.	

Unit/Group/Process Information	
ID No.: GRP OILHTRS	
Control Device ID No.: 003SCRSTK, 013-SCR/VE	Control Device Type: Selective Catalytic Reduction (SCR)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 116, NSR Permits	SOP Index No.: 93813
Pollutant: NOX	Main Standard: 93813
Monitoring Information	
Indicator: Nitrogen Oxides Concentration	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: Maximum NOx concentration shall not exceed 3.16 lbs/hr.	
CAM Text: Use a continuous emission monitoring system (CEMS) to measure and record the concentration of nitrogen oxides and either oxygen or carbon dioxide in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B. NOx Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour).	

Permit Shield

Permit Shield 43

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
004-FLARE	N/A	40 CFR Part 63, Subpart A	Control device is not used to comply with any applicable subpart of 40 CFR Part 63.
GRP AMINE	AMINE I, AMINE II	30 TAC Chapter 112, Sulfur Compounds	Gas sweetening unit does not use sulfur recovery.
GRP TANKS	005ATKAM1, 005BTKAM2, 007TKSLOP, 015TKAMINE, 016TKUSE, 017TKNEW, 018TKSLOP	40 CFR Part 60, Subpart Kb	Storage vessel capacity is less than 75 m3.

New Source Review Authorization References

New Source Review Authorization References 45

New Source Review Authorization References by Emission Unit..... 47

New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 93813	Issuance Date: 07/24/2013
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.264	Version No./Date: 09/04/2000

New Source Review Authorization References

The following is a list of new Source Review (NSR) authorizations issued by EPA.

Prevention of Significant Deterioration (PSD) Permit for GHG Emissions	
PSD Permit No.: PSDTX93813GHG	Issuance Date: 10/12/2012

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
004-FLARE	PLANT FLARE	93813
005ATKAM1	FRAC I AMINE TANK 1	93813
005BTKAM2	FRAC I AMINE TANK 2	93813
007TKSLOP	FRAC I SLOP WATER TANK	93813
008-LDSLP	FRAC I SLOP WATER LOAD	93813
009-FUG	FRAC I FUGITIVES	93813
010-DGEN1	EMERGENCY DIESEL GENERATOR	93813
011-DGEN2	FIREWATER PUMP	93813
015TKAMINE	FRAC II AMINE TANK	93813
016TKUSE	FRAC II USED OIL TANK	93813
017TKNEW	FRAC II NEW OIL TANK	93813
018TKSLOP	FRAC II SLOP WATER TANK	93813
019-FUG	FRAC II FUGITIVES	93813
AMINE I	FRAC I AMINE UNIT	93813
AMINE II	FRAC II AMINE UNIT	93813
AMINETRT-1	FRAC I AMINE VENTS	93813
AMINETRT-2	FRAC II AMINE VENTS	93813
GEN-LOAD	PLANT LOADING/UNLOADING	93813

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
HOHTR-1	FRAC I HOT OIL HEATER	93813
HOHTR-2	FRAC II HOT OIL HEATER	93813
REGENHTR1	FRAC I REGEN HEATER	93813
REGENHTR2	FRAC II REGEN HEATER	93813
THERMO-1	FRAC I THERMAL OXIDIZER	93813
THERMO-2	FRAC II THERMAL OXIDIZER	93813

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations issued by EPA for emission units listed elsewhere in this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
HOHTR-1	FRAC I HOT OIL HEATER	PSDTX93813GHG
HOHTR-2	FRAC II HOT OIL HEATER	PSDTX93813GHG
004-FLARE	PLANT FLARE	PSDTX93813GHG
THERMO-1	FRAC I THERMAL OXIDIZER	PSDTX93813GHG
THERMO-2	FRAC II THERMAL OXIDIZER	PSDTX93813GHG
019-FUG	FRAC II FUGITIVES	PSDTX93813GHG

Appendix A

Acronym List 51

Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM ..... actual cubic feet per minute
AMOC ..... alternate means of control
ARP ..... Acid Rain Program
ASTM ..... American Society of Testing and Materials
B/PA ..... Beaumont/Port Arthur (nonattainment area)
CAM ..... Compliance Assurance Monitoring
CD ..... control device
COMS ..... continuous opacity monitoring system
CVS ..... closed-vent system
D/FW ..... Dallas/Fort Worth (nonattainment area)
DR ..... Designated Representative
ElP ..... El Paso (nonattainment area)
EP ..... emission point
EPA ..... U.S. Environmental Protection Agency
EU ..... emission unit
FCAA Amendments ..... Federal Clean Air Act Amendments
FOP ..... federal operating permit
GF ..... grandfathered
GHG ..... greenhouse gas
gr/100 scf ..... grains per 100 standard cubic feet
HAP ..... hazardous air pollutant
H/G/B ..... Houston/Galveston/Brazoria (nonattainment area)
H_2S ..... hydrogen sulfide
ID No. ..... identification number
lb/hr ..... pound(s) per hour
MMBtu/hr ..... Million British thermal units per hour
MRRT ..... monitoring, recordkeeping, reporting, and testing
NA ..... nonattainment
N/A ..... not applicable
NADB ..... National Allowance Data Base
NO_x ..... nitrogen oxides
NSPS ..... New Source Performance Standard (40 CFR Part 60)
NSR ..... New Source Review
ORIS ..... Office of Regulatory Information Systems
Pb ..... lead
PBR ..... Permit By Rule
PM ..... particulate matter
ppmv ..... parts per million by volume
PSD ..... prevention of significant deterioration
RO ..... Responsible Official
SO_2 ..... sulfur dioxide
TCEQ ..... Texas Commission on Environmental Quality
TSP ..... total suspended particulate
TVP ..... true vapor pressure
U.S.C. ..... United States Code
VOC ..... volatile organic compound

Appendix B

Major NSR Summary Table..... 53

Major NSR Summary Table

Permit Number: PSD-TX-93813-GHG			**Issuance Date:** 10/12/2012				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
003-SCR	FRAC I Hot Oil Heater	CO_2 CH_4 N_2O CO_2e	-- -- -- --	137,943 2.6 0.26 138,078	III.B.1.b., III.B.1.c., III.B.1.d., III.B.1.e., III.B.1.f., III.B.1.g, III.B.1.h., III.B.1.k., III.B.1.l., III.B.2.a., III.F., IV.A.a, IV.A.b., IV.E., V.A., V.B., V.J., V.L., V.M., V.N.	III.B.1.b., III.B.1.c., III.B.1.d., III.B.1.e., III.B.1.f., III.B.1.g, III.B.1.h., III.B.1.k., III.B.1.l., III.B.2.a., III.F., IV.A.a., IV.A.b., IV.E., IV.G., IV.H., V.A., V.B., V.C., V.J., V.L., V.M., V.N.	IV.H., V.A., V.B., V.C.
013- SCR	FRAC II Hot Oil Heater	CO_2 CH_4 N_2O CO_2e	-- -- -- --	137,943 2.6 0.26 138,078	III.B.1.b., III.B.1.c., III.B.1.d., II.B.1.e., III.B.1.f., III.B.1.g, III.B.1.h., III.B.1.k., III.B.1.l., III.B.2.b., III.F., IV.A.a, IV.A.b., IV.E., V.A., V.B., V.J., V.L., V.M., V.N.	III.B.1.b., III.B.1.c., III.B.1.d., III.B.1.e., III.B.1.f., III.B.1.g, III.B.1.h., III.B.1.k., III.B.1.l., III.B.2.b., III.F., IV.A.a., IV.A.b., IV.E., IV.G., IV.H., V.A., V.B., V.C., V.J., V.L., V.M., V.N.	IV.H., V.A., V.B., V.C.
003-SCR	FRAC I Regenerator Heater	CO_2 CH_4 N_2O CO_2e	-- -- -- --	23,501 0.44 0.04 23,524	III.B.1.b., III.B.1.c., III.B.1.d., III.B.1.e., III.B.1.f., III.B.1.g, III.B.1.h., III.B.1.k., III.B.1.l., III.B.2.c., III.F., IV.A.a, IV.A.b., IV.E., V.A., V.B., V.J., V.L., V.M., V.N.	III.B.1.b., III.B.1.c., III.B.1.d., III.B.1.e., III.B.1.f., III.B.1.g, III.B.1.h., III.B.1.k., III.B.1.l., III.B.2.c., III.F., IV.A.a., IV.A.b., IV.E., IV.G., IV.H., V.A., V.B., V.C., V.J., V.L., V.M., V.N.	IV.H., V.A., V.B., V.C.
013-SCR	FRAC II Regenerator Heater	CO_2 CH_4 N_2O CO_2e	-- -- -- --	23,501 0.44 0.04 23,524	III.B.1.b., III.B.1.c., III.B.1.d., III.B.1.e., III.B.1.f., III.B.1.g, III.B.1.h., III.B.1.k., III.B.1.l., III.B.2.d., III.F., IV.A.a, IV.A.b., IV.E., V.A., V.B., V.J., V.L., V.M., V.N.	III.B.1.b., III.B.1.c., III.B.1.d., III.B.1.e., III.B.1.f., III.B.1.g, III.B.1.h., III.B.1.k., III.B.1.l., III.B.2.d., III.F., IV.A.a., IV.A.b., IV.E., IV.G., IV.H., V.A., V.B., V.C., V.J., V.L., V.M., V.N.	IV.H., V.A., V.B., V.C.
004-FLARE	Flare	CO_2 CH_4 N_2O CO_2e	-- -- -- --	52 negligible negligible 52	III.D.1.b., III.D.1.e., III.D.1.f., IV.A.a, IV.A.b., IV.E., V.E.	III.D.1.b., III.D.1.e., III.D.1.f., IV.A.a, IV.A.b., IV.E., IV.G., IV.H., V.E.	IV.H.

Permit Number: PSD-TX-93813-GHG			**Issuance Date:** 10/12/2012				
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates ***		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lb/hr	**TPY****	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
002-THERMO	FRAC I Thermal Oxidizer	CO_2 CH_4 N_2O CO_2e	-- -- -- --	36,406 0.18 0.02 42,703	III.C.1.c, III.C.1.d, III.C.1.e., III.C.1.f, III.C.1.g, III.C.1.i., III.C.1.j., III.C.1.k, III.C.1.l., III.F., IV.A.a, IV.A.b., IV.A.c., IV.D., IV.E., V.A., V.B., V.E., V.F., V.G., V.H., V.J., V.L., V.M., V.N.	III.C.1.c, III.C.1.d, III.C.1.e., III.C.1.f, III.C.1.g, III.C.1.i., III.C.1.j., III.C.1.k, III.C.1.l., III.F., IV.A.a, IV.A.b., IV.A.c., IV.D., IV.E., IV.G., IV.H., V.A., V.B., V.C., V.E., V.F., V.G., V.H., V.J., V.L., V.M., V.N.	IV.A.c., IV.H., V.A., V.B., V.C.
012-THERMO	FRAC II Thermal Oxidizer	CO_2 CH_4 N_2O CO_2e	-- -- -- --	36,406 0.18 0.02 42,703	III.C.1.c, III.C.1.d, III.C.1.e., III.C.1.f, III.C.1.g, III.C.1.i., III.C.1.j., III.C.1.k, III.C.1.l., III.F., IV.A.a, IV.A.b., IV.A.c., IV.D., IV.E., V.A., V.B., V.E., V.F., V.G., V.H., V.J., V.L., V.M., V.N.	III.C.1.c, III.C.1.d, III.C.1.e., III.C.1.f, III.C.1.g, III.C.1.i., III.C.1.j., III.C.1.k, III.C.1.l., III.F., IV.A.a, IV.A.b., IV.A.c., IV.D., IV.E., IV.G., IV.H., V.A., V.B., V.C., V.E., V.F., V.G., V.H., V.J., V.L., V.M., V.N.	IV.A.c., IV.H., V.A., V.B., V.C.
019-FUG	Fugitive Process Emissions	CH_4 CO_2e	-- --	Not Applicable	III.E.1.b, III.E.1.d., IV.A.a, IV.E.	III.E.1.b, III.E.1.d., IV.A.a,, IV.C, IV.E., IV.G., IV.H.	III.E.1.d., IV.H.

Footnotes:

1. Compliance with the annual emission limits (tons per year) is based on a 365-day total, rolled daily.
2. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations and include MSS activities.
3. Global Warming Potentials (GWP): CH_4 = 21, N20 = 310
4. The total emissions for CH_4 and $C0_2e$ include the PTE for process fugitive emissions of CH_4. These totals are given for informational purposes only and do not constitute emission limits.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

OCT 12 2012

Mr. Jeff Weiler
Environmental Manager
Energy Transfer Partners, L.P. dba Lone Star NGL, LLC
800 E. Sonterra Blvd., Suite 400
San Antonio, TX 78258

Dear Mr. Weiler:

In accordance with the Clean Air Act (CAA), as amended (42 U.S.C. 7401 et seq.), the U.S. Environmental Protection Agency has reviewed your application for a CAA Prevention of Significant Deterioration (PSD) for Greenhouse Gas Emissions permit authorizing the construction of a new NGL fractionation unit and associated support equipment known as the Lone Star NGL, Mont Belvieu Gas Plant in Mont Belvieu, Texas.

The EPA issued and published requests for public comment regarding EPA's proposed action on the above application on August 29, 2012. During the public comment period, no comments were received for this proposed action. However, a few administrative and/or clarifying changes were included and a copy of the Final Permit Revision Summary is enclosed. After consideration of the pertinent Federal statutes, regulations, and additional material relevant to the application contained in our Administrative Record, the EPA hereby issues the enclosed PSD Permit for the facility described above. The final permit, Final Permit Revision Summary and other key documents relevant to the final PSD permit are also available online at http://yosemite.epa.gov/r6/Apermit.nsf/AirP.

In accordance with 40 CFR §124.15(b)(3), this PSD Permit becomes effective immediately upon issuance. If you have any questions regarding this matter, please contact Mr. Jeff Robinson, Chief, Air Permits Section at (214) 665-6435.

Sincerely,

Carl E. Edlund, P.E., Director
Multimedia Planning and
Permitting Division

Enclosures

cc: Mr. Steve Hagle, P.E., Deputy Director, Office of Air, TCEQ
Mr. Mike Wilson, P.E., Director, Air Permits Division, TCEQ

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
FOR GREENHOUSE GAS EMISSIONS
ISSUED PURSUANT TO THE REQUIREMENTS AT 40 CFR § 52.21

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 6

PSD PERMIT NUMBER: PSD-TX-93813-GHG

PERMITTEE: Energy Transfer Partners, LP
dba Lone Star NGL, LLC
800 E. Sonterra Blvd., Suite 400
San Antonio, TX 78258

FACILITY NAME: Lone Star NGL, Mont Belvieu Gas Plant

FACILITY LOCATION: 10030 A FM 1942
Mont Belvieu, TX 77580

Pursuant to the provisions of the Clean Air Act (CAA), Subchapter I, Part C (42 U.S.C. Section 7470, *et. Seq.*), and the Code of Federal Regulations (CFR) Title 40, Section 52.21, and the Federal Implementation Plan at 40 CFR § 52.2305 (effective May 1, 2011 and published at 76 FR 25178), the U.S. Environmental Protection Agency, Region 6 is issuing a *Prevention of Significant Deterioration* (PSD) permit to the Energy Transfer Partners, LP dba Lone Star NGL for Greenhouse Gas (GHG) emissions. The Permit authorizes the construction of a second fractionation train at the existing Mont Belvieu Gas Plant located in Mont Belvieu, Texas.

Lone Star NGL is authorized to modify the existing fractionation train (FRAC I) and construct a second fractionation train (FRAC II) at the existing gas processing plant as described herein, in accordance with the permit application (and plans submitted with the permit application), the federal PSD regulations at 40 CFR § 52.21, and other terms and conditions set forth in this PSD permit in conjunction with the corresponding Texas Commission on Environmental Quality (TCEQ) standard permit No. 93813. Failure to comply with any condition or term set forth in this PSD Permit may result in enforcement action pursuant to Section 113 of the Clean Air Act (CAA). This PSD Permit does not relieve Lone Star NGL of the responsibility to comply with any other applicable provisions of the CAA (including applicable implementing regulations in 40 CFR Parts 51, 52, 60, 61, 72 through 75, and 98) or other federal and state requirements (including the state PSD program that remains under approval at 40 CFR § 52.2303).

In accordance with 40 CFR §124.15(b), this PSD Permit becomes effective immediately upon issuance of this final decision.

Carl E. Edlund, Director
Multimedia Planning and Permitting Division

10/12/12
Date

Energy Transfer Partners, L.P. dba Lone Star NGL
Mont Belvieu Gas Plant (PSD-TX-93813-GHG)
Prevention of Significant Deterioration Permit
For Greenhouse Gas Emissions
Final Permit Conditions

PROJECT DESCRIPTION

Pursuant to the provisions of this permit, the facility will modify the existing fractionation (FRAC I) train and construct a second fractionation (FRAC II) train at the Mont Belvieu Gas Plant in Chambers County, Texas. The existing fractionation (FRAC I) train is currently authorized by 30 Texas Administrative Code (TAC) §116.620. Both FRAC I and FRAC II will fractionate Y-grade natural gas liquids (NGL) through a series of trayed columns that separate the NGL into constituent gas products, which include ethane, propane, butanes, and natural gasoline, for sale to customers. Both FRAC I and FRAC II will process approximately 100,000 barrels per day each based on a Y-grade purity feed containing 54% ethane. The fractionation trains (FRAC I and FRAC II) can process a wide range of Y-grade purity feed containing between 38% to 54% ethane. The Y-grade purity feed with 38% ethane is a heavier product which requires a higher heat duty. Therefore, the maximum firing rate of the heaters is based on the 38% ethane Y-grade feed.

The FRAC I and FRAC II trains are identical. The first stage in each fractionation train (FRAC I and FRAC II) is an amine unit. The amine unit contactors will remove CO_2 and H_2S impurities from the NGL stream. The amine unit will be a closed loop system. Waste gas from the amine unit will be routed to the thermal oxidizer (TO) for combustion of H_2S and VOC. From the Amine Unit, the NGL will be routed through a Molecular Sieve dehydration unit, where the water content of the NGL will be reduced. The Molecular Sieve will not have vents to the atmosphere. The only GHG emissions from the Molecular Sieve will be fugitive piping equipment leaks. From the Molecular Sieve dehydration unit, the NGL will be fed to a series of trayed columns for separation into constituent product gases. No GHG emissions will be generated from processes downstream from the Amine Unit, except for emissions from process heaters and fugitives, because the processes will be closed systems and most, if not all CO_2 is removed at the Amine Unit. Additionally very little, if any, methane is contained in the NGL that will enter the plant.

Both fractionation trains (FRAC I and FRAC II) will employ a hot oil system that will provide heat to the process. By using hot oil, heat can be efficiently transferred to the fractionation process with a minimum loss of heat to the oil, allowing for a quicker recovery to the desired temperature in a closed -loop system. Lone Star NGL plans to utilize the hot oil system as needed to provide heat in the Amine Regeneration unit, the Molecular Sieve regeneration unit, and as needed to various heat exchangers associated with the fractionation process (i.e., piping to

maintain desired temperatures on process streams). Both fractionation trains (FRAC I and FRAC II) will have one Hot Oil Heater rated at 270 MMBtu/hr that will support the hot oil system. Additionally, each fractionation train (FRAC I and FRAC II) will utilize a Molecular Sieve regeneration heater that will be rated at 46 MMBtu/hr. The combustion of natural gas in these two heaters will result in combustion-related GHG emissions. Both process heaters, for each fractionation train (FRAC I and FRAC II), will be ducted to a common stack that will be equipped with Selective Catalytic Reduction (SCR) technology to significantly reduce NOx emissions.

An air-assisted flare will be installed at the Mont Belvieu site to control emergency process releases and streams resulting from maintenance, startup, and shutdown (MSS) activities from both FRAC I and FRAC II. No process streams will be routed to the flare during normal operation. Combustion related GHG emissions from the flare will result from the combustion of natural gas fuel to the pilots and combustion of MSS hydrocarbon streams. The flare will have a hydrocarbon destruction and removal efficiency (DRE) of 99%.

Both of the fractionation trains (FRAC I and FRAC II) will utilize a thermal oxidizer (TO) to combust waste gas streams from the process. GHG emissions from the TO will result from waste gas and fuel gas combustion. The waste gas will be converted to CO_2 and water vapor. Both thermal oxidizers will have a hydrocarbon destruction and removal efficiency (DRE) of 99%.

Fugitive emissions of GHG pollutants, including CO_2 and methane, may result from piping equipment leaks. However, very little of these pollutants are contained in the NGL after the amine unit. The piping components that may leak include valves, flanges, pump seals, etc. Lone Star NGL will implement the TCEQ 28LAER Leak Detection and Repair (LDAR) program for the entire Mont Belvieu site.

EQUIPMENT LIST

The following devices are subject to this GHG PSD permit.

Emission Unit Id. No.	Description
003-HOHTR 013-HOHTR	Two Hot Oil Heater (Combustion Unit) rated at 270 MMBtu/hr.
003-RGNHTR 013-RGNHTR	Two Molecular Sieve Regeneration Heater (Combustion Unit) rated at 46 MMBtu/hr.
044-FLARE	Flare (Combustion Unit) used for control of Maintenance, Startup, and Shutdown (MSS) emissions.
012-THERMO 002-THERMO	Two Thermal Oxidizers (Combustion Unit) for control of waste gas streams.
009-FUG 019-FUG	Fugitive emissions from the FRAC I and FRAC II trains.

I. GENERAL PERMIT CONDITIONS

A. PERMIT EXPIRATION

As provided in 40 CFR §52.21(r), this PSD Permit shall become invalid if construction:

1. is not commenced (as defined in 40 CFR §52.21(b)(9)) within 18 months after the approval takes effect; or

2. is discontinued for a period of 18 months or more; or

3. is not completed within a reasonable time.

Pursuant to 40 CFR §52.21(r), EPA may extend the 18-month period upon a written satisfactory showing that an extension is justified.

B. PERMIT NOTIFICATION REQUIREMENTS

Permittee shall notify EPA Region 6 in writing or by electronic mail of the:

1. date construction is commenced, postmarked within 30 days of such date;

2. actual date of initial startup, as defined in 40 CFR §60.2, postmarked within 15 days of such date; and

3. date upon which initial performance tests will commence, in accordance with the provisions of Section V, postmarked not less than 30 days prior to such date. Notification

may be provided with the submittal of the performance test protocol required pursuant to Condition V.B.

C. FACILITY OPERATION

At all times, including periods of startup, shutdown, and malfunction, Permittee shall maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the EPA, which may include, but is not limited to, monitoring results, review of operating maintenance procedures and inspection of the facility.

D. MALFUNCTION REPORTING

1. Permittee shall notify EPA by mail within 48 hours following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in GHG emissions above the allowable emission limits stated in Section II of this permit.

2. Within 10 days of the restoration of normal operations after any failure described in I.D.1., Permittee shall provide a written supplement to the initial notification that includes a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in Section II and III, and the methods utilized to mitigate emissions and restore normal operations.

3. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or any law or regulation such malfunction may cause.

E. RIGHT OF ENTRY

EPA authorized representatives, upon the presentation of credentials, shall be permitted:

1. to enter the premises where the facility is located or where any records are required to be kept under the terms and conditions of this PSD Permit;

2. during normal business hours, to have access to and to copy any records required to be kept under the terms and conditions of this PSD Permit;

3. to inspect any equipment, operation, or method subject to requirements in this PSD Permit; and,

4. to sample materials and emissions from the source(s).

F. TRANSFER OF OWNERSHIP

In the event of any changes in control or ownership of the facilities to be constructed, this PSD Permit shall be binding on all subsequent owners and operators. Permittee shall notify the succeeding owner and operator of the existence of the PSD Permit and its conditions by letter; a copy of the letter shall be forwarded to EPA Region 6 within thirty days of the letter signature.

G. SEVERABILITY

The provisions of this PSD Permit are severable, and, if any provision of the PSD Permit is held invalid, the remainder of this PSD Permit shall not be affected.

H. ADHERENCE TO APPLICATION AND COMPLIANCE WITH OTHER ENVIRONMENTAL LAWS

Permittee shall construct and operate this project in compliance with this PSD Permit, the application on which this permit is based and all other applicable federal, state, and local air quality regulations. This PSD permit does not release the Permittee from any liability for compliance with other applicable federal, state and local environmental laws and regulations, including the Clean Air Act.

I. ACRONYMS AND ABBREVIATIONS

BACT	Best Available Control Technology
bbl	Barrel
Btu	British Thermal Unit
CAA	Clean Air Act
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CGA	Cylinder Gas Audit
CH_4	Methane
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DRE	Destruction and Removal Efficiency
dscf	Dry Standard Cubic Foot
EPN	Emission Point Number
FR	Federal Register
GHG	Greenhouse Gas
gr	Grains
HHV	High Heating Value
hp	Horsepower
Hr	Hour
IFR	Internal Floating Roof
LDAR	Leak Detection and Repair
LHV	Lower Heating Value
Lb	Pound
MMBtu	Million British Thermal Units
MMSCFD	Million Standard Cubic Feet per Day
MSS	Maintenance, Start-up and Shutdown
NGL	Natural Gas Liquids
N_2O	Nitrous Oxides
NSPS	New Source Performance Standards
PSD	Prevention of Significant Deterioration
QA/QC	Quality Assurance and/or Quality Control
RATA	Relative Accuracy Test Audit
SCFH	Standard Cubic Feet per Hour
SCR	Selective Catalytic Reduction
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TO	Thermal Oxidizer
TPY	Tons per Year
VRU	Vapor Recovery Unit
USC	United States Code

II. Annual Facility Emission Limits

Annual emissions, in tons per year (TPY) on a 365-day total, rolled daily shall not exceed the following:

Table 1. Facility Emission Limits[1]

FIN	EPN	Description	GHG Mass Basis		TPY $CO_2e^{2,3}$	BACT Requirements
				TPY[2]		
003-HOHTR	003-SCR	FRAC I Hot Oil Heater	CO_2	137,943	138,078	2,759 lb CO_2/bbl of NGL processed. See permit condition III.B.2.a.
			CH_4	2.6		
			N_2O	0.26		
013-HOHTR	013-SCR	FRAC II Hot Oil Heater	CO_2	137,943	138,078	2,759 lb CO_2/bbl of NGL processed. See permit condition III.B.2.b.
			CH_4	2.6		
			N_2O	0.26		
003-RGNHTR	003-SCR	FRAC I Regenerator Heater	CO_2	23,501	23,524	470 lbs CO_2/bbl of NGL processed. See permit condition III.B.2.c.
			CH_4	0.44		
			N_2O	0.04		
013-RGNHTR	013-SCR	FRAC II Regenerator Heater	CO_2	23,501	23,524	470 lbs CO_2/bbl of NGL processed. See permit condition III.B.2.d.
			CH_4	0.44		
			N_2O	0.04		
004-FLARE	004-FLARE	Flare	CO_2	52	52	Good combustion practices. See permit condition III.D.1.f.
			CH_4	negligible		
			N_2O	negligible		
002-THERMO	002-THERMO	FRAC I Thermal Oxidizer	CO_2	36,406	42,703	Good combustion practices, and annual compliance testing. See permit conditions III.C.1.c. through III.C.1.j.
			CH_4	0.18		
			N_2O	0.02		
012-THERMO	012-THERMO	FRAC II Thermal Oxidizer	CO_2	36,406	42,703	Good combustion practices, and annual compliance testing. See permit conditions III.C.1.c. through III.C.1.j.
			CH_4	0.18		
			N_2O	0.02		
019-FUG	019-FUG	Fugitive Process Emissions	CH_4	Not Applicable	Not Applicable	Implementation of LDAR Program. See permit condition III.E.1.d.
Totals[4]			**CO_2**	**395,752**	**CO_2e 408,662**	
			CH_4	**6.44**		
			N_2O	**0.64**		

1. Compliance with the annual emission limits (tons per year) is based on a 365-day total, rolled daily.
2. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations and include MSS activities.
3. Global Warming Potentials (GWP): $CH_4 = 21$, $N_2O = 310$
4. The total emissions for CH_4 and CO_2e include the PTE for process fugitive emissions of CH_4. These totals are given for informational purposes only and do not constitute emission limits.

III. Special Permit Conditions

A. Site-wide Requirement

The Permittee shall install, operate, and maintain electric driven engines for refrigeration compression.

B. Requirements for Heaters

1. Heater Work Practice and Operational Requirements

a. Each Fractionation train has one hot oil heater rated at 270 million British thermal units per hour (MMBtu/hr) (FRAC I - 003-HOHTR and FRAC II -013-HOHTR) and a molecular sieve regenerator heater rated at 46 MMBtu (FRAC I - 003-RGNHTR and FRAC II - 013-RGNHTR). Both process heaters, in each fractionation train (FRAC I and FRAC II), will be ducted to a common stack that will be equipped with Selective Catalytic Reduction (SCR) technology (003-SCR and 013-SCR, respectively).

b. Permittee shall calculate, on a monthly basis, the amount of CO_2 emitted from combustion in tons/yr using equation C-2a in 40 CFR Part 98 Subpart C. Compliance shall be based on a 365-day rolling total.

c. Permittee shall calculate the CH_4 and N_2O emissions on a 365-day rolling basis. Permittee shall determine compliance with the CH_4 and N_2O emissions limits contained in this section using the default CH_4 and N_2O emission factors contained in Table C-2 and equation C-9a of 40 CFR Part 98 and the measured actual heat input (HHV).

d. Permittee shall calculate the CO_2e emissions on a 12-month rolling basis, based on the procedures and Global Warming Potentials (GWP) contained in Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1, as published on October 30, 2009 (74 FR 56395).

e. Fuel for the heaters shall be limited to pipeline quality natural gas with a fuel sulfur content of up to 5 grains of sulfur per 100 dry standard cubic feet (gr S/100 dscf). The fuel gross calorific value (GCV) [high heat value (HHV)] of the fuel shall be determined, at a minimum, semiannually by the procedures contained in 40 CFR Part 98.34(a)(6) and records shall be maintained of the semiannual fuel GCV for a period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in the heaters or shall allow a sample to be taken by EPA for analysis.

f. The flow rate of the fuel combusted in natural gas-fired combustion emission units identified in this section shall be measured and recorded using an

operational non-resettable elapsed flow meter at each inlet. The flow meters must be calibrated on an annual basis

g. Oxygen analyzers shall continuously monitor and record oxygen concentration in the hot oil and regenerator heaters. It shall reduce the oxygen readings to an averaging period of 6 minutes or less and record it at that frequency.
h. The oxygen analyzers shall be quality-assured at least quarterly using cylinder gas audits (CGAs) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., two successive semiannual CGAs may be conducted).
i. The permittee shall not allow the excess air in the combustion chamber of the heaters to exceed 15%.
j. The heaters will be equipped with low-NO_x staged/quenching (flue gas recirculating) burners with burner management systems.
k. The heaters shall be tuned for thermal efficiency on an annual basis.
l. The heaters are not expected to have GHG emissions in excess of the allowed emission rates during periods of startup, shutdown, or maintenance. The fuel firing rates will be below the maximum rate and startups will be limited to 30 minutes.

2. Heater BACT Emission Limits

a. On or after the date of initial startup, the Permittee shall not discharge or cause the discharge of emissions from the hot oil heater (003-HOHTR) in excess of 2,759 lbs CO_2/barrel (bbl - a barrel contains 42 gallons) of NGL processed on a 365-day rolling average. To determine achievement of this BACT emission limit, the Permittee shall divide the value of the measured input mass rate of CO_2 from the natural gas GCV analysis required in Special Condition III.B.1.e. by the measured daily natural gas liquids processed from the FRAC I Unit (bbl) required in Special Condition IV.B.
b. On or after the date of initial startup, the Permittee shall not discharge or cause the discharge of emissions from the hot oil heater (013-HOHTR) in excess of 2,759 lbs CO_2/barrel (bbl - a barrel contains 42 gallons) of NGL processed on a 365-day rolling average. To determine achievement of this BACT emission limit, the Permittee shall divide the value of the measured input mass rate of CO_2 from the natural gas GCV analysis required in Special Condition III.B.1.e. by the measured daily natural gas liquids processed from the FRAC II Unit (bbl) required in Special Condition IV.B.

c. On or after the date of initial startup, the Permittee shall not discharge or cause the discharge of emissions from the mole sieve regeneration heater (003-RGNHTR) in excess of 470 lbs CO_2/barrel (bbl - a barrel contains 42 gallons) of NGL processed on a 365-day rolling average. To determine achievement of this BACT emission limit, the Permittee shall divide the value of the measured input mass rate of CO_2 from the natural gas GCV analysis required in Special Condition III.B.1.e by the measured daily natural gas liquids processed from the FRAC I Unit (bbl) required in Special Condition IV.B.

d. On or after the date of initial startup, the Permittee shall not discharge or cause the discharge of emissions from the molecular sieve regeneration heater (013-RGNHTR) in excess of 470 lbs CO_2/barrel (bbl - a barrel contains 42 gallons) of NGL processed on a 365-day rolling average. To determine achievement of this BACT emission limit, Permittee shall divide the value of the measured input mass rate of CO_2 from the natural gas GCV analysis required in Special Condition III.B.1.e. by the measured daily natural gas liquids processed from the FRAC II Unit (bbl) required in Special Condition IV.B.

C. Thermal Oxidizer Emission Source

1. Thermal Oxidizer Work Practice and Operational Requirements

a. Each fractionation unit (FRAC I and FRAC II) is equipped with a thermal oxidizer (002-THERMO and 012-THERMO). GHG emissions from the thermal oxidizers result from fuel gas combustion (pipeline quality natural gas) and waste gas combustion (waste gas from the amine unit).

b. The thermal oxidizer is designed to combust low-VOC concentration waste gas from the amine units and has a fuel rating of 10 MMBtu/hr when firing natural gas.

c. The thermal oxidizer shall have an initial stack test, and annual compliance testing, to verify destruction and removal efficiency (DRE) of at least 99% for VOC.

d. For burner combustion, natural gas fuel usage (scf) is recorded using an operational non-resettable elapsed flow meter at the thermal oxidizer.

e. The flow rate of the waste gas combusted shall be measured and recorded using an operational non-resettable elapsed flow meter at the thermal oxidizer.

f. Waste gas will be sampled and analyzed on a quarterly basis for composition. The sampled data will be used to calculate GHG emissions to show compliance with the limits specified in Table 1.

g. Permittee shall calculate CO_2 emissions, on a monthly basis, using equation W-3 consistent with 40 CFR Part 98, Subpart W [98.233(d)(2)].
h. Periodic maintenance will help maintain the efficiency of the thermal oxidizer and shall be performed at a minimum annually or more often as recommended by the manufacturer specifications.
i. The Permittee shall maintain the combustion temperature at a minimum of 1,400 °F at all times when processing waste gases from the amine unit in the thermal oxidizer. Temperature monitoring of the thermal oxidizer will ensure proper operation. The Permittee shall install and maintain a temperature recording device with an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.
j. The thermal oxidizers' exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizers. The temperature measurement devices shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency.
k. Oxygen analyzers shall continuously monitor and record oxygen concentration when waste gas is directed to the thermal oxidizers. It shall reduce the oxygen readings to an averaging period of 6 minutes or less and record it at that frequency.
l. The oxygen analyzers shall be quality-assured at least semiannually using cylinder gas audits (CGAs) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., two successive semiannual CGAs may be conducted).

D. Flare Emission Sources

1. Flare Work Practice and Operational Requirements

a. MSS emissions from both the proposed FRAC II and the existing FRAC I trains shall be vented to a flare (004-FLARE).
b. The flare shall have a minimum destruction and removal efficiency (DRE) of 99% based on flowrate and gas composition measurements as specified in 40 CFR Part 98 Subpart W § 98.233(n).
c. The flare (004-FLARE) is an intermittent use MSS flare, not a continuous process flare. The flare, shall only combust pilot gas as a continuous stream.
d. The flare is air assisted.
e. Permittee must record the time, date, fuel heat input (HHV) in MMBtu/hr and duration of each MSS event. The records must include hourly CH_4 emission levels as measured by the in-line gas analyzer (Gas chromatograph or equivalent

with volumetric stack gas flowrate) and the calculations based on the actual heat input for the CO_2, N_2O, and CH_4 emissions during each MSS event. These records must be kept for five years following the date of each event.

f. The flare shall be designed and operated in accordance with 40 CFR 60.18 including specifications of minimum heating value of the waste gas, maximum tip velocity, and pilot flame monitoring. An infrared monitor is considered equivalent to a thermocouple for flame monitoring purposes.

E. Fugitive Emission Sources

1. Fugitive Emission Sources Work Practice and Operational Requirements

a. The permittee shall use dry compressor seals instead of wet seals to reduce leaks.
b. The permittee shall use rod packing for reciprocating compressors and will conduct annual inspections of the packing materials.
c. The permittee shall use low-bleed gas-driven pneumatic controllers which emit less gas or compressed air-driven pneumatic controllers which do not emit GHGs.
d. The permittee shall implement the TCEQ 28LAER Leak Detection and Repair (LDAR) program for fugitive emissions of methane.

F. Continuous Emissions Monitoring Systems (CEMS)

1. As an alternative to Special Conditions III.B.2. and III.C.1.i, Permittee may install a CO_2 CEMS and volumetric stack gas flow monitoring system with an automated data acquisition and handling system for measuring and recording CO_2 emissions discharged to the atmosphere, and use these values to show compliance with the annual emission limit in Table 1.
2. Permittee shall ensure that all required CO_2 monitoring system/equipment are installed and all certification tests are completed on or before the earlier of 90 unit operating days or 180 calendar days after the date the unit commences operation.
3. Permittee shall ensure compliance with the specifications and test procedures for CO_2 emission monitoring system at stationary sources, 40 CFR Part 75, or 40 CFR Part 60, Appendix B, Performance Specification numbers 1 through 9, as applicable.
4. Permittee shall meet the appropriate quality assurance requirements specified in 40 CFR Part 60, Appendix F for the CO_2 emission monitoring system.

IV. Recordkeeping Requirements

A. In order to demonstrate compliance with the GHG emission rates, the permittee will monitor the following parameters and summarize the data on a calendar month basis.

   a. Operating hours for all air emission sources;
   b. The natural gas fuel usage for all combustion sources, using continuous fuel flow monitors (a group of equipment can utilize a common fuel flow meter, as long as actual fuel usage is allocated to the individual equipment based upon actual operating hours and maximum firing rate);
   c. Annual fuel sampling for natural gas, quarterly fuel sampling of waste gas; and
   d. The daily natural gas liquids processing rate for the FRAC I and FRAC II units.

B. Permittee shall maintain the daily production volumes of natural gas liquids produced for the FRAC I and FRAC II unit in barrels per day (bbl/day). Records shall be maintained for a period of five years.

C. Permitee will implement the TCEQ 28LAER leak detection and repair (LDAR) program and keep records of the monitoring results, as well as the repair and maintenance records.

D. At least once per quarter, the Permittee will obtain an updated analysis of the waste gas from the amine unit. This analysis will be considered to be representative of the gas streams for the quarter during which it was taken and will be used to estimate the amine unit waste gas vent emissions, Higher Heating Value (HHV), and Lower Heating Value (LHV).

E. For each calendar month, the Permittee will calculate the 12 month rolling GHG emission rates for comparison to the Maximum Allowable Emission Rates Table (MAERT).

F. The Permittee will also maintain site-specific procedures for best/optimum maintenance practices and vendor-recommended operating procedures and O&M manuals. These manuals must be maintained with the permit and located on-site.

G. Permittee shall maintain a file of all records, data, measurements, reports, and documents related to the operation of the facility, including, but not limited to, the following: all records or reports pertaining to significant maintenance performed on any system or device at the facility; the occurrence and duration of any startup, shutdown, or malfunction, annual tuning of heaters; all records relating to performance tests and monitoring of combustion equipment; calibrations, checks, duration of any periods during which a monitoring device is inoperative, and corresponding emission measurements; and all other information required by this permit recorded in a permanent form suitable for inspection. The file must be retained for not less than five years following the date of such measurements, maintenance, reports, and/or records.

H. Permittee shall maintain records and submit a written report of all excess emissions to EPA semi-annually, except when: more frequent reporting is specifically required by an

applicable subpart; or the Administrator or authorized representative, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. The report is due on the 30th day following the end of each semi-annual period and shall include the following:

1. Time intervals, data and magnitude of the excess emissions, the nature and cause (if known), corrective actions taken and preventive measures adopted;
2. Applicable time and date of each period during which the monitoring equipment was inoperative (monitoring down-time);
3. A statement in the report of a negative declaration; that is; a statement when no excess emissions occurred or when the monitoring equipment has not been inoperative, repaired or adjusted; and
4. Any failure to conduct any required source testing, monitoring, or other compliance activities.

I. Excess emissions shall be defined as any period in which the facility emission exceeds a maximum emission limit set forth in this permit.

J. Excess emissions indicated by GHG emission source certification testing or compliance monitoring shall be considered violations of the applicable emission limit for the purpose of this permit.

K. All records required by this PSD Permit shall be retained for not less than 5 years following the date of such measurements, maintenance, and reports.

V. Performance Testing Requirements:

A. The holder of this permit shall perform an initial stack test to establish the actual quantities of air contaminants being emitted into the atmosphere from emission units 003-HOHTR, 013-HOHTR, 003-RGNHTR, 013-RGNHTR, 002-THERMO, and 012-THERMO and to determine the initial compliance with the CO_2 emission limits established in this permit. Sampling shall be conducted in accordance with 40 CFR § 60.8 and EPA Method 3a or 3b for the concentration of CO_2 for the heaters.

1. Multiply the CO_2 hourly average emission rate determined under maximum operating test conditions by 8,760 hours.
2. If the above calculated CO_2 emission total does not exceed the tons per year (TPY) specified on Table 1, no compliance strategy needs to be developed.
3. If the above calculated CO_2 emission total exceeds the tons per year (TPY) specified in Table 1, the facility shall;
    a. Document the exceedance in the test report; and
    b. Explain within the report how the facility will assure compliance with the CO_2

emission limit listed in Table 1.

B. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility, performance tests(s) must be conducted and a written report of the performance testing results furnished to the EPA. Additional sampling may be required by TCEQ or EPA.
C. Permittee shall submit a performance test protocol to EPA no later than 30 days prior to the test to allow review of the test plan and to arrange for an observer to be present at the test. The performance test shall be conducted in accordance with the submitted protocol, and any changes required by EPA.
D. Performance testing must be conducted using a representative rate of operation.
E. Fuel sampling for emission units 002-THERMO, 012-THERMO, and 004-FLARE shall be conducted in accordance with 40 CFR Part 98.
F. The holder of this permit shall perform initial performance demonstration testing of the thermal oxidizer at the site. The thermal oxidizer shall operate at the maximum production rate during stack emissions testing. The Permittee shall measure CH_4 concentrations in the thermal oxidizer inlet and exhaust streams to demonstrate a minimum destruction efficiency of 99% by weight at a minimum combustion chamber temperature of 1,400 °F.
G. The Permittee shall record the combustion chamber temperature and combustion chamber set-point temperature during the performance test. These and any additional operational parameters shall be identified in the test protocol and recorded during testing. Following the performance test, the thermal oxidizer shall be operated at or above the combustion chamber set-point temperature used to demonstrate compliance, and at all times greater than 1,400 °F.
H. For the thermal oxidizer the sampling site and velocity traverse point shall be selected in accordance with EPA Test Method 1or 1A. The gas volumetric flow rate shall be measured in accordance with EPA Test Method 2, 2A, 2C, 2D, 2F, 2G, or 19. The dry molecular weight shall be determined in accordance with EPA Test Method 3, 3A or 3B. The stack gas moisture shall be determined in accordance with EPA Test Method 4. These methods must be performed, as applicable, during each test run.
I. Performance tests must be conducted under such conditions to ensure representative performance of the affected facility. The owner or operator must make available to the EPA such records as may be necessary to determine the conditions of the performance tests.
J. The owner or operator must provide the EPA at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the EPA the opportunity to have an observer present and/or to attend a pre-test meeting. If there is a delay in the original test date, the facility must provide at least 7 days prior notice of the rescheduled date of the performance test.
L. The owner or operator shall provide, or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to this facility,
2. Safe sampling platform(s),
3. Safe access to sampling platform(s), and
4. Utilities for sampling and testing equipment.

M. Unless otherwise specified, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For purposes of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply.

N. Emissions testing, as outlined above, shall be performed every three years, or more frequently if identified above, to verify continued performance at permitted emission limits.

VI. Agency Notifications

Permittee shall submit GHG permit applications, permit amendments, and other applicable permit information to:

Multi Media Planning and Permitting Division
EPA Region 6
1445 Ross Avenue (6 PD-R)
Dallas, TX 75202
Email: Group R6AirPermits@EPA.gov

Permittee shall submit a copy of all compliance and enforcement correspondence as required by this Approval to Construct to:

Compliance and Enforcement Division
EPA Region 6
1445 Ross Avenue (6EN)
Dallas, TX 75202